

FIG. 1

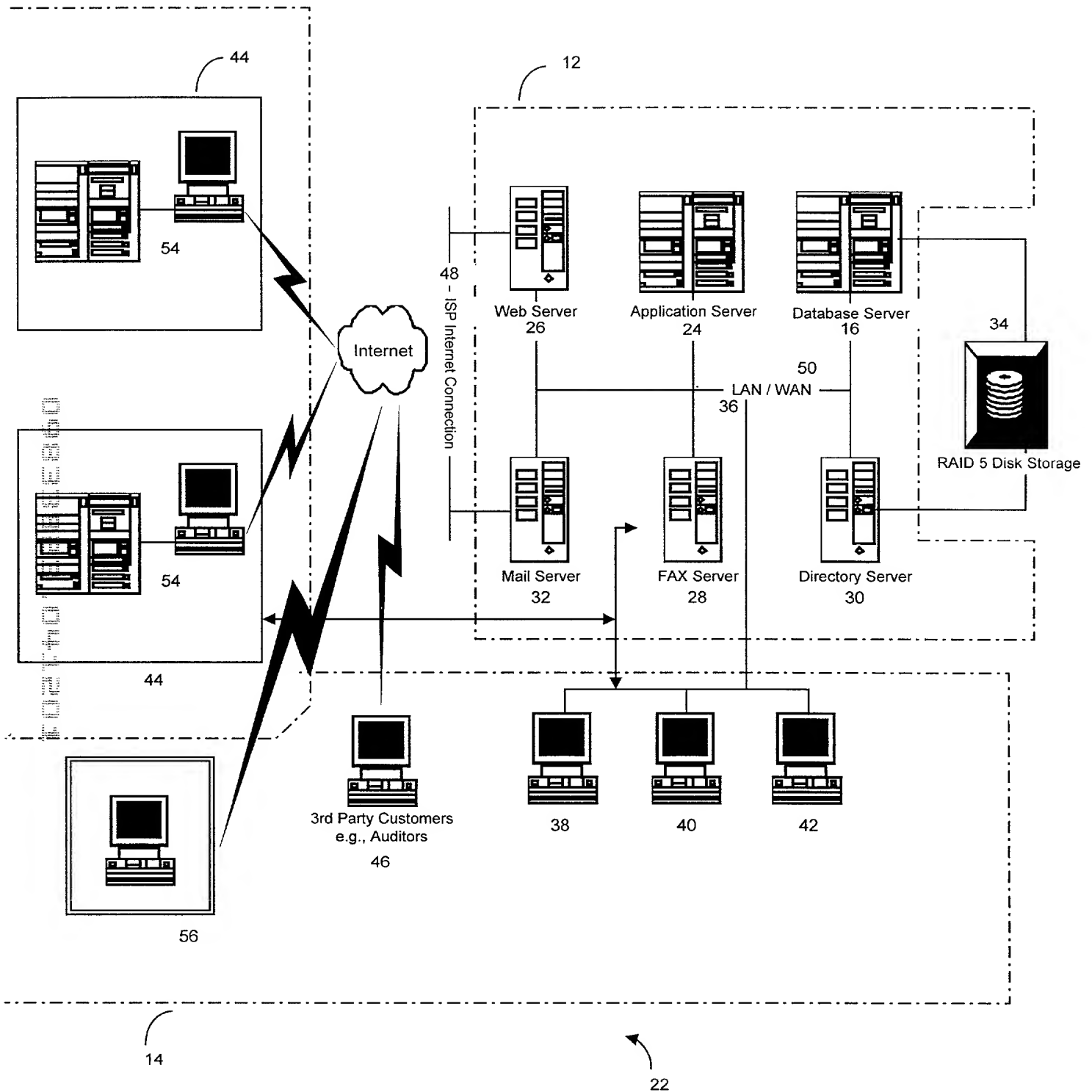
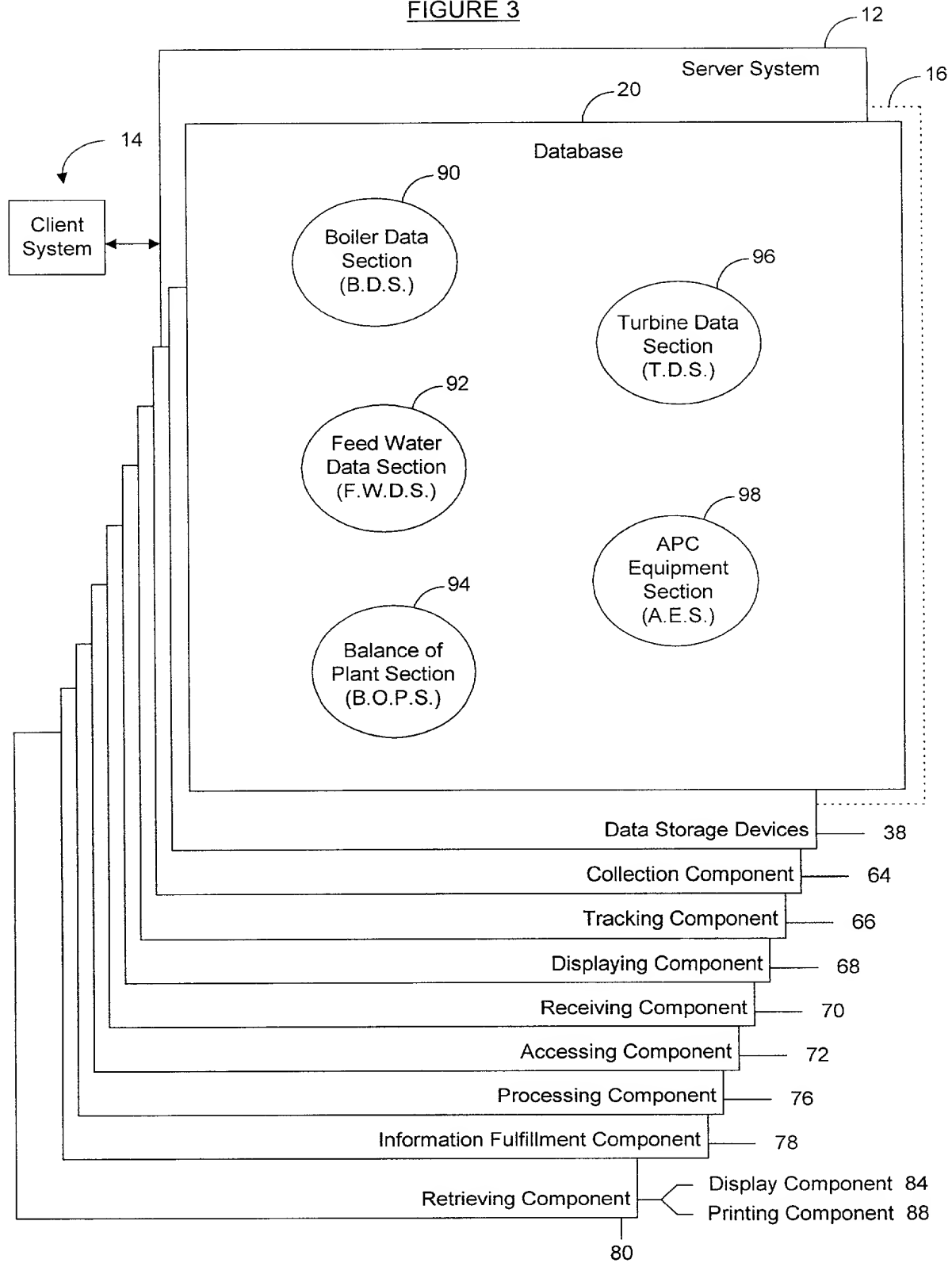


FIGURE 2

FIGURE 3



File Name CoalPerf031601
Project Name Sample Project
Location USA
Operator To Be Determined

Facility Generation Information (per unit information):

Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
975	0	0	0	0	0	0	0
Typical							
House Load							
Type of Unit							

Existing Operational Hours From CO 148 920

Dispatch Information

Unit 1											
Percentage of Available Hours Dispatched											
2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
January 100.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
February 100.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
March 100.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
April 100.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
May 100.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
June 100.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
July 100.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
August 100.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
September 100.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
October 100.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
November 100.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
December 100.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
Dispatched Load											
January 95.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
February 95.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
March 95.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
April 95.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
May 95.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
June 95.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
July 95.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
August 95.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
September 95.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
October 95.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
November 95.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
December 95.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%

FIGURE - 4

Unit 2

[illegible]

Unit 3

[illegible]

January	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	
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Figure 5

Unit 6

Percentage of Available Hours Dispatched

[illegible]

Observations

Dated/Lead	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
January	88.00%	89.00%	89.00%	88.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
February	88.00%	89.00%	88.00%	88.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
March	97.00%	97.00%	97.00%	87.00%	97.00%	87.00%	97.00%	97.00%	97.00%	97.00%
April	88.00%	89.00%	89.00%	88.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
May	98.00%	98.00%	98.00%	88.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
June	100.00%	89.00%	89.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
July	100.00%	100.00%	100.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
August	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
September	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
October	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
November	88.00%	98.00%	98.00%	88.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
December	88.00%	89.00%	98.00%	88.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%

Unit 7

Percentage of Available Hours Dispatched

[illegible]

Display

Distributed Load	2001	2002	2003	2004	2005	2006	2007	2008	2010
January	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	99.00%
February	98.00%	98.00%	97.00%	98.00%	98.00%	98.00%	98.00%	98.00%	99.00%
March	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%
April	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
May	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
June	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
July	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
August	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
September	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
October	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
November	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
December	99.00%	99.00%	99.00%	98.00%	99.00%	99.00%	98.00%	98.00%	99.00%

FIGURE 7

Unit 8

Percentage of Available Hours Dispatched

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
January	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
February	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
March	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
April	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
May	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
June	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
July	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
August	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%	96.00%
September	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
October	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%	95.00%
November	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
December	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%	94.00%
Dispatched Load	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
January	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
February	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
March	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%	97.00%
April	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
May	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
June	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
July	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
August	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%	99.00%
September	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
October	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
November	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%
December	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%	98.00%

FIGURE - 8

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Elemental Information:

ACTUAL ANALYSIS

Metallic & Ash Free	
Carbon	74.69%
Hydrogen	6.29%
Nitrogen	1.26%
Chlorine	0.05%
Sulfur	1.31%
Oxygen	13.34%
Proximate (8.00% H ₂ O)	
Fixed Carbon	54.00%
Volatile Matter	29.80%
Residues	6.80%
Ash	100.00%
Excess Air	20.00%
H ₂ O	8.00%

Ash Mineral Analysis	
Silica - SiO ₂	81.00%
Alumina - Al ₂ O ₃	14.00%
Titania - TiO ₂	1.10%
Ferric Oxide - Fe ₂ O ₃	8.80%
Lime - CaO	24.00%
Magnesia - MgO	6.00%
Potassium Oxide - K ₂ O	1.00%
Sodium Oxide - Na ₂ O	1.20%
Sulfur Trioxide - SO ₃	92.00%
Phosphoric Anhydride - P ₂ O ₅	0.70%
Undetermined	2.30%

Operational Information:

ACTUAL CYCLE VALUES

Cycle

144

	Substrate Flow (lb/hr)	Outlet Pressure (psia)	Outlet Temperature
Unit 1	2,568,331	2,400	1500
Unit 2			
Unit 3			
Unit 4			
Unit 5			
Unit 6			
Unit 7			
Unit 8			
Substrate Flow (lb/hr)	639	Outlet Pressure (psia)	574
2,254,065		Outlet Temperature (F)	1,000

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Exhaust Temperature (F)	
Unit 1	480
Unit 2	0
Unit 3	0
Unit 4	0
Unit 5	0
Unit 6	0
Unit 7	0
Unit 8	0

148

Black Temperature (F)	
ACTUAL	▼
Unit 1	275
Unit 2	0
Unit 3	0
Unit 4	0
Unit 5	0
Unit 6	0
Unit 7	0
Unit 8	0

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FIGURE-9

Facility Equipment Information:

Flyash Control Equipment

Unit 1	Monitors	Unit 1
Unit 2	ESP	Unit 2
Unit 3	BARBERS PLUS SORTED BARS	Unit 3
Unit 4	ESP	Unit 4
Unit 5	ESP	Unit 5
Unit 6	ESP	Unit 6
Unit 7	ESP	Unit 7
Unit 8	ESP	Unit 8

SO2 Control Equipment

Unit 1	Control	Unit 1
Unit 2	NO SO2 EQUIPMENT	Unit 2
Unit 3	NO SO2 EQUIPMENT	Unit 3
Unit 4	NO SO2 EQUIPMENT	Unit 4
Unit 5	NO SO2 EQUIPMENT	Unit 5
Unit 6	NO SO2 EQUIPMENT	Unit 6
Unit 7	NO SO2 EQUIPMENT	Unit 7
Unit 8	NO SO2 EQUIPMENT	Unit 8

Mercury Control Equipment

Unit 1	ACTIVATED CARBON	Unit 1
Unit 2	NO Hg CONTROL	Unit 2
Unit 3	NO Hg CONTROL	Unit 3
Unit 4	NO Hg CONTROL	Unit 4
Unit 5	NO Hg CONTROL	Unit 5
Unit 6	NO Hg CONTROL	Unit 6
Unit 7	NO Hg CONTROL	Unit 7
Unit 8	NO Hg CONTROL	Unit 8

NOx Control Equipment

Unit 1	SCR	Unit 1
Unit 2	LOW NOx BURNERS	Unit 2
Unit 3	SCR	Unit 3
Unit 4	LOW NOx BURNERS	Unit 4
Unit 5	LOW NOx BURNERS	Unit 5
Unit 6	LOW NOx BURNERS	Unit 6
Unit 7	LOW NOx BURNERS	Unit 7
Unit 8	LOW NOx BURNERS	Unit 8

Pricing Information

Coal Pricing	\$15.00
FOB Mine	\$15.00
Transportation	\$30.00

FIGURE-10

160

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168

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STEAM CONDITIONS:

	Without QF Steam	With Equip. QF Steam	
Superheater Flow	2,568,331	2,568,331	lb/hr
Reheater Flow	2,254,665	2,254,665	lb/hr

	Superheat	Reheat
Inlet Conditions:		
Steam Pressure - psia	2,470	639
Steam Quality	0	
Water/Steam Temp. - F	490	660
Enthalpy	476	1,325
Outlet Conditions:		
Steam Pressure - psia	2,415	589
Steam Temp - Deg F	1,000	1,000
Enthalpy	1,460	1,518
Heat Input	984	192

QF HEAT LOSS	No Loss	
Pounds Per Hour	0	
Pressure - psia	464.696	
Temperature	460	
Degrees of SH	50	
QF Steam Enthalpy	1243.18	
FW Enthalpy	476.14	
Heat Loss - Btu/s	0	Btu/s
Increase in Steam - #/hr	0	#/hr
	0.00%	
Equip Output - MW	373	MW

No Loss	Included
Pounds Per Year	0.0000E+00

Reheat-To Superheat Ratio 0.877871661

PREDICTED PERFORMANCE: AVERAGE LOAD

		100%	(MCR)	95.00%	
FUEL	Pulverized Coal				
TURBINE STEAM FLOW CORRECTION FACTOR		0.9589		0.9589	
EVAPORATION	Superheater	2,568,331		2,439,914	
	Reheater	2,254,665		2,141,932	
TEMP AT SUPERHEATER/REHEATER OUTLET	F	1,000	/ 1,000	1,000	1000
PRES AT SUPERHEATER/REHEATER OUTLET	psig	2,400	/ 574	2,400	574
FEEDWATER TEMP	F	490		490	
GAS TEMP LEAVING AIR HEATER	F	275		268	
	(uncorr.)				
AMBIENT AIR TEMP.	F	80		80	
AIR TEMP LEAVING THE AIR HEATER (APPROX)	F	552			
EXCESS AIR	pct	20		20	
HEAT LOSSES					LHV
	DRY GAS	4.36%		4.20%	4.20%
	H2O & H2 IN FUEL	8.04%		8.02%	
	H2O IN AIR	0.10%		0.10%	
	CARBON	0.25%		0.24%	0.20%
	RADIATION	0.35%		0.33%	0.33%
	MFG. MARGIN	1.50%		1.43%	1.43%
	HEAT CREDITS	-0.41%		-0.39%	
	BLOWDOWN	0.00%		0.00%	
	TOTAL	14.19%		13.92%	6.15%
EFFICIENCY	pct	85.81%		86.08%	93.85%
GROSS HEAT FIRED	MMBtu/hr	3,554.99		3,366.55	
FUEL FIRED PER HOUR	lb/hr	418,234	tonnes/hr	396,065	tonnes/hr
	TPH	209.12	190	198.03	180
AVERAGE LOAD CONDITION DURING AVAILABLE HOURS	%	100.00%		95.00%	
AVAILABLE HOURS		8,256		8,256	
FUEL FIRED PER YEAR	tyr	1,726,472		1,634,955	
TOTAL COMBUSTION PRODUCTS	lb/hr	3,601,358		3,410,456	
	ACFM	1,109,079			
TOTAL COMBUSTION AIR	lb/hr	3,183,124		3,014,392	
	ACFM	997,176			
TOTAL ASH (100% UP)	tyr	11.50		10.89	
TOTAL LIMESTONE (100% UP)	tyr	3.10		2.93	
	tyr	25,596		24,230	
TOTAL FLYASH/LIMESTONE REMOVAL SYSTEM LOADING	tyr	14.60		13.83	
	tyr			114,152	
FLUE GAS TO STACK	lb/hr	3,601,358		3,410,456	
LUNGSTROM AIR HEATER LEAKAGE	lb/hr	0		0	
SOOT BLOWING STEAM	lb/hr	0		0	
NET EVAPORATION	lb/hr	2,568,331		2,439,914	
POUNDS STM/KW		6.89			
NO. OF UNITS		1			
HEAT RATE CALCULATION (APPROX.):					
Gross Heat Rate (Total Plant)	BTU/KW HR				
Net Heat Rate (Turbine Only)	BTU/KW HR				
Plant Gross Heat Rate:	BTU/KW HR	9,543	HHV	8,513	10,036
		8,824	LHV	8,796	9,280
Plant Net Heat Rate	BTU/KW HR	10,098	HHV	10,066	10,621
		9,338	LHV	9,308	9,820

FIGURE - 11

	2001	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Total
Direct Labor	Total Plant Costs									
Acquired for local labor requirements year 1 - none	0									
	\$4,469,453									\$4,469,453 F
Operator's Fees & Services	\$27,208									\$27,208 F
Bonus Payments:	\$0									\$0 F
Home Office Technical Support:	\$0									\$0 F
Percent of Annual Labor	\$0									\$0 F
Warranty Support:	\$0									\$0 F
Percent of Annual Labor	\$0									\$0 F
Planned Maintenance*	\$4,100,253									\$4,100,253 M
Boiler										
Turbine (Major Turbine Outage assumed in 1999)										
APC Equipment										
Feedwater System										
BCP										
Unplanned Maintenance:	\$410,253									\$410,253 M
10% of Planned Maintenance										
Planned Spare Parts:										
Boiler	\$1,721,081									\$1,721,081 V
Turbine	\$788,230									\$788,230 V
APC Equipment	\$144,191									\$144,191 V
Feedwater System	\$62,891									\$62,891 V
BCP	\$2,000,784									\$2,000,784 V
Unplanned Spare Parts	\$28,829									\$28,829 V
10% of Planned Spare										
Employee Travel & Relocation:	\$66,200									\$66,200 F
Other Employee Expenses, Fees and Services	\$286,422									\$286,422 F
Office/Administration expenses:	\$381,872									\$381,872 F
Contract Services:	Initial 444									
Percent of Annual Labor										
Ash Disposal:	\$1,128,990	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1,128,990 V
Start-up Fuel	\$84,718	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$84,718 V
Consumables*	\$279,877									\$279,877 V
Chemicals:	\$459,868									\$459,868 V
Coal:	\$48,910,089	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$48,910,089 V
Lubricants:	\$303,408	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$303,408 V
Purchased Power:	\$212,706	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$212,706 V
Equipment Rental:	\$1,418,653									\$1,418,653 V
Total Operating Budget	Case 4									
Taxes	\$0									\$0 F
Insurance	\$0									\$0 F
Not included Building Data Base										
Total Operating Costs including Taxes and Insurance*										\$98,120,337 F
Over 1 MW Renewed Annually	2,262,176,623	0	0	0	0	0	0	0	0	2,262,176,623
Cost of Generation										\$0.0238

FIGURE 12

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O&M Cost Summary For:					
2001					
Direct Labor:	Fired Costs \$KARS KCS	Variable Costs	Misc. Maintenance	Fuel	
Operator's Fees & Services:	\$327,839				
Bonus Payments.	\$0				
Office Office Technical Support:	\$0				
Warranty Support:	\$0				
Planned Maintenance			\$4,100,324		
Power Marketing & Resource Management	\$0				
Unplanned Maintenance:			\$410,003		
Planned Spare Parts:					
Solar:		\$1,173,081			
Inverter:		\$116,200			
Controller:		\$148,600			
Accessories:		\$42,091			
Feedwater System:		\$113,281			
BOP:		\$2,860,334			
		\$396,659			
Unplanned Spare Parts:					
Employee Travel & Relocation:	\$85,350				
Other Employee Expenses, Fee and Services	\$396,422				
Office/Administration expenses:	\$361,673				
Indirect					
Contract Services'					
Lsh Disposal:		\$1,128,960			
Start-up Fuel:		\$94,718			
Consumables:		\$279,877			
Chemicals:		\$458,698			
Coal:				\$46,910,009	
Invertors:		\$300,448			
Purchased Power:		\$212,708			
Equipment Rental:		\$1,416,553			
Total Operating Budget	4				
	\$2,822,086	\$7,215,116	\$4,210,367	\$46,910,009	
	-19.8%	10.36%	6.71%	98.61%	
Fired Costs	\$0.0033	Variable Costs	Maintenance	Fuel	
	\$0.0033	\$0.0033	\$0.0016	\$0.998	\$0.0238
					Total Generation Cx353 \$68,766,677

FIGURE - 13

File Name: CoalPerf031801
Project Name: Sample Project
Location: USA

FIGURE 14

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Operator: To Be Determined

Facility Generation Information (per unit information):

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Total
Facility Net Output:	1	0	0	0	0	0	0	0	382.0
House Load (~5.5%):	352.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	MW
House Load in MW	5.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
	20.46	0.00	0.00	0.00	0.00	0.00	0.00	0.00	MW
Line Losses:	0	0	0	0	0	0	0	0	Total
Unit Gross Output:	373	0	0	0	0	0	0	0	373
	373	0	0	0	0	0	0	0	MW
O&M Costs Calculated:	1	1	1	1	1	1	1	1	
Eqv. Increased MW Output:	0	0	0	0	0	0	0	0	MW
(Approximate)	373	0	0	0	0	0	0	0	MW
Gross Output Used in O&M Calculations:	373	0	0	0	0	0	0	0	MW
Unit Net Heat Rate (HHV)	10,008	0	0	0	0	0	0	0	BTU/kWh
(Full Load Calculated Value)	10,654	0	0	0	0	0	0	0	kWh/kWh

Operational Information For:

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Total
Base O&M Labor Costs On	1	0	0	0	0	0	0	0	1
Gross Maximum Capacity	373	0	0	0	0	0	0	0	373
Net Maximum Capacity	352	0	0	0	0	0	0	0	352
Net Capacity Factor	88.53%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Availability Factor	84.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Gross Generation (Actual)	2,921,798	0	0	0	0	0	0	0	2,921,798
Net Generation (Actual)	2,761,087	0	0	0	0	0	0	0	2,761,087
Per Year = 1, Per Month = 2	8,760	0	0	0	0	0	0	0	0
Period Hours	8,258	0	0	0	0	0	0	0	0
Available Hours	0	0	0	0	0	0	0	0	0
Forced Outage Hours	0	0	0	0	0	0	0	0	0
Planned Outage Hours	0	0	0	0	0	0	0	0	0
Maintenance Outage Hours	0	0	0	0	0	0	0	0	0
Average Load Condition (Gross)	354	0	0	0	0	0	0	0	MW
Average Load Condition (Net)	334	0	0	0	0	0	0	0	MW
	85.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

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	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
QF Steam Flow (% of MCR)	0%	0%	0%	0%	0%	0%	0%	0%
Pounds Per Hour (Average)	0	0	0	0	0	0	0	0
Pounds Per Year	0	0	0	0	0	0	0	0
Pressure (psig)	460	460	450	450	450	450	450	450
Degrees of SH (F)	50	50	50	50	50	50	50	50

(Input 0 for saturated steam or input actual degrees of SH)

Cost Related Information:

17 Mar-01

Exchange Rate (X/US\$)	1	US\$
Cost per Ton of Fuel (including trans.)		\$15.00
		\$15.00
		\$30.00
		\$33.07
		\$17.00
		\$0.88
		\$1.76
		\$10.00
		2
		\$0.00
		\$0.00
		\$15.00
		2
		\$0.80
		\$0.50

Operator Related Information:	
Operator Fee	\$0
Operator Bonus	\$0
Home Office Tech Support	\$0
Warranty Support	\$0
Number of shifts	4
Union/non-union Facility	Union = 1 ; non-union=0
Overtime	10%
	40%

Facility Equipment Information:								
Type Of Boiler Equipment (1 or 2)	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8
PULVERIZED COAL FLUIDIZED BED	PC 1	PC 1	PC 1	PC 1	PC 1	PC 1	PC 1	PC 1
Flyash Control System								
1 ESP	2	1	3	1	1	1	1	1
2 BAGHOUSE								
3 BAGHOUSE PLUS GORETEX BAGS								
SO ₂ Control System:								
1 NO SO ₂ EQUIPMENT	3	1	2	1	1	1	1	1
2 DRY INJECTION								
3 SCRUBBER								
Mercury Control System								
1 Hg CONTROL	2	1	1	1	1	1	1	1
2 ACTIVATED CARBON								

CoalPerf031701

General Information

3/17/2001
5:08 PM

FIGURE 15

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163440 030600

1 LOW NOX BURNERS
2 SNCR
3 SCR

Cooling Tower: (Y=est; No=0)

1 ACTUAL CYCLE VALUES
2 STANDARD 1800 PSIG (NONREHEAT)
3 STANDARD 2400 PSIG (5% OP)

Cycle:

Superheater:

(-1,080,000 @ 800 MW)

Flow without OF heat loss
Equip. CF Steam Increase
Total Steam Flow
Outlet Pressure
Outlet Temperature

Reheater:

-3,770,000 @ 800 MW
Flow without OF heat loss
Equip. CF Steam Increase
Total Steam Flow
Inlet Pressure (psig)
Inlet Temperature (F)
Outlet Pressure (psig)
Outlet Temperature (F)

Feedwater Temperature

Stack Temperature

Ambient Temperature

Spiree Cost

Fuel Loss during Handling:

SO2 Removal

1 ACTUAL
2 STANDARD

Fuels Information:

1 ACTUAL ANALYSIS
2 STANDARD BITUMINOUS
3 STANDARD SUBBITUMINOUS
4 STANDARD LIGNITE (TEXAS)
5 STANDARD NATURAL GAS

Selected Fuels Input:

Fuel Analysis:

Ultimate Analysis
Moisture
Ash
Carbon
Hydrogen
Nitrogen
Chlorine
Sulfur
Oxygen

Excess Air:
HHV:
LHV:
Proximate:
Fixed Carbon (difference)
Volatile Matter
Sulfur

20.00%
8.500
18.28
33.71%
30.44%
0.85%

Butylb
Guilome

Natural Gas (Gas analysis is entered on fuels page)

Oxygen
Argon
Carbon Dioxide
Nitrogen
Hydrogen
Hydrogen Sulfide
Methane
Ethane
Propane
n-Butane
n-Pentane
Isopentane
Total:

0.00%
0.00%
0.00%
0.00%
0.00%
0.00%
0.00%
0.00%
0.00%
0.00%
0.00%
0.00%
0.00%

Excess Air: 10.00%

HHV: 0
LHV: 0

Butylb(1)
Guilome(1)

Note 1: (68F 30" WG)

254

FIGURE-16

10

Moisture	28.45%
Ash	5.45%
	100.00%

258

Furnace Volume Design Parameters	
Volume - Cu, Ft.:	20,000
Surface - Sq. Ft. (EPRS - Up Nose):	200,000
IN-TPA:	1,850,000
Carbon Loss	0.25%

FIGURE-17

FIGURE-18

270

File Name: CoalPerf031601
Project Name: Sample Project

Location: USA

Operator: To Be Determined

Escalation 4.00%
Escalation Factor 1.070

	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Total Facility
Unit Gross Output	373	0	0	0	0	0	0	0	373
	(9-Mar-01)								
Development Costs									
Internal Costs	\$11,833	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,832.68
Third Party Costs	\$12,326	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$12,325.70
Project Counsel	\$1,578	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,577.69
Development Contingency	\$0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Land Options	\$986	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$986.06
Pre NTP EPC Cost	\$1,072	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,072.11
Total Development Costs	\$28,694	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$28,694.24
Development Fee	\$9,057	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,057.15
Mine Acquisition Costs	\$0	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Site Purchase	\$12,076	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$12,076.17
Development Fee/Mine Acquisition/Site	\$21,133	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$21,133.30
Plant									
Boilers									
Headers	\$4,307	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$4,307.00
Heating Surface	\$21,306	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$21,306.00
Waterwall	\$12,904	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$12,904.00
Steel	\$16,533	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$16,533.00
Piping Equipment	\$10,275	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$10,275.00
Misc Equipment	\$20,646	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$20,646.00
	\$86,601	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$86,600.85
Turbine Generators	\$38,324	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$38,324.26
BAGHOUSE	\$7,459	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$7,459.07
SCRUBBER	\$37,253	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,252.60
ACTIVATED CARBON	\$419.07	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$419.07
SCR	\$37,253	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$37,252.60
Circulating Water System	\$1,275.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,275.65
Electrical System & Equipment	\$23,330.45	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$23,330.45
Fuel Storage & Handling	\$17,662.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$17,662.70
Infrastructure	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Water Treatment	\$3,132.42	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,132.42
Other	\$39,755.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$39,755.15
Misc Insurance	\$515.62	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$515.62
Fixtures									
Boilers - not plant related	\$446.53	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$446.53
Chimneys	\$3,500.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$3,500.00
Cooling Towers	\$20,257.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$20,257.85
Coal Bunkers	\$1,002.37	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,002.37
Land & Buildings									
Buildings	\$34,773.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$34,773.70
Other									
EPC Target	\$49,085.80	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$49,085.80
Total EPC Costs	\$402,046.65	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$402,046.65
Transmission Fees During Construction	\$4,021.87	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$4,021.87
Waste Water Pipeline	\$11,189.05	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$11,189.05
Management Services During Construction									
General & Administrative	\$15,302.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$15,302.48
Professional Services	\$2,760.96	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,760.96
Engineering Consultants	\$1,972.11	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,972.11
Utilities	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Owner's Mobilization G&A	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Other Owner's Costs	\$2,218.63	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$2,218.63
Management Services Fee	\$1,725.60	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,725.60
Total Owner's Costs	\$24,059.78	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24,059.78
O&M Mobilization									
Labor	\$8,606.58	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,606.58
Fee	\$1,015.84	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,015.84
G&A	\$374.70	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$374.70
Plant Consumables	\$1,358.81	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,358.81
Equipment	\$5,423.31	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,423.31
Owners G&A	\$9,663.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$9,663.35
	\$24,440.39	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$24,440.39
Infrastructure Costs									
Roads	\$8,263.15	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,263.15
Community Infrastructure	\$1,054.09	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,054.09
Mine Industrial Area	\$5,180.74	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$5,180.74
Construction Camp	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Water Management	\$1,178.37	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,178.37
Total Infrastructure Costs	\$15,676.35	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$15,676.35
Owner's Contingency									
Power Plant EPC Costs	\$40,204.67	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$40,204.67
Transmission Costs	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Electrical Interconnection	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Infrastructure Costs	\$1,567.44	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$1,567.44
Total Owner's Contingency	\$41,772.10	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$41,772.10
Financing Fees/Costs									
Financial Advisor	\$6,409.37	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$6,409.37
Upfront Fees	\$8,381.48	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$8,381.48
	\$14,790.85	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$14,790.85
Unit Gross Output	373	0	0	0	0	0	0	0	373
Total Cost	\$587,823	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$587,823
\$/kW Installed	\$1.578	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$1.578

File Name: CoalPerf031601
Project Name: Sample Project
Location: USA
Operator: To Be Determined

Date	Hours of Operation (% of operational year)	Mar-01	Mar-02	Mar-03	Mar-04	Mar-05	Mar-06	Mar-07	Mar-08	Mar-09	Mar-10	10 Year Average
Operational Year		1	2	3	4	5	6	7	8	9	10	
Waterwall		\$258	\$1,290	\$258	\$258	\$258	\$258	\$258	\$1,290	\$258	\$258	\$258
Heating Surface		\$439	\$2,193	\$439	\$439	\$439	\$439	\$439	\$2,193	\$439	\$439	\$439
Grates		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Pulverizers		\$0	\$1,032	\$0	\$258	\$0	\$516	\$0	\$1,032	\$0	\$258	\$258
Air Pre-Heater		\$0	\$1,032	\$0	\$258	\$0	\$516	\$0	\$1,032	\$0	\$258	\$258
Fuel Handling		\$0	\$98	\$0	\$177	\$0	\$98	\$0	\$177	\$0	\$98	\$98
Headers		\$0	\$215	\$0	\$0	\$0	\$0	\$0	\$215	\$0	\$0	\$0
Steel		\$0	\$0	\$0	\$0	\$0	\$17	\$0	\$0	\$0	\$0	\$0
Belt/Crushers		\$0	\$0	\$0	\$0	\$0	\$132	\$0	\$0	\$0	\$0	\$0
Casing/Refractory/Ductwork		\$0	\$0	\$0	\$0	\$0	\$177	\$0	\$0	\$0	\$0	\$0
Chemical Cleaning		\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$550	\$0	\$0	\$0
Sub-Total		\$697	\$9,561	\$697	\$1,388	\$697	\$2,143	\$697	\$9,488	\$697	\$1,301	\$1,301
Turbine (Insp/Overhaul)		\$0	\$1,916	\$0	\$0	\$0	\$0	\$0	\$1,916	\$0	\$0	\$0
Turbine Valves		\$0	\$575	\$0	\$0	\$287	\$0	\$0	\$575	\$0	\$0	\$0
Generator (Inspections)		\$0	\$766	\$0	\$0	\$0	\$0	\$0	\$766	\$0	\$0	\$0
Sub-Total		\$0	\$3,257	\$0	\$0	\$287	\$0	\$0	\$3,257	\$0	\$0	\$0
Anion Resin		\$344	\$0	\$0	\$376	\$0	\$0	\$407	\$0	\$0	\$188	\$188
Cation Resin		\$0	\$141	\$0	\$0	\$0	\$125	\$0	\$0	\$0	\$0	\$0
MB Resin		\$141	\$0	\$0	\$110	\$0	\$0	\$125	\$0	\$0	\$141	\$141
Carbon Filters		\$78	\$0	\$78	\$0	\$78	\$0	\$78	\$0	\$78	\$0	\$0
Gravity Filters		\$0	\$0	\$13	\$0	\$0	\$0	\$0	\$0	\$28	\$0	\$0
Sub-Total		\$664	\$141	\$91	\$486	\$78	\$128	\$611	\$0	\$116	\$328	\$328
BAGHOUSE		\$0	\$0	\$164	\$0	\$0	\$164	\$0	\$0	\$164	\$0	\$0
SCRUBBER		\$0	\$0	\$310	\$0	\$0	\$310	\$0	\$0	\$310	\$0	\$0
Sub-Total		\$0	\$0	\$474	\$0	\$0	\$474	\$0	\$0	\$474	\$0	\$0
Electrical		\$0	\$233	\$0	\$233	\$0	\$233	\$0	\$233	\$0	\$233	\$233
IBC		\$0	\$117	\$0	\$117	\$0	\$117	\$0	\$117	\$0	\$117	\$117
Power Block		\$0	\$1,916	\$0	\$0	\$698	\$0	\$0	\$1,916	\$0	\$0	\$0
Ash Handling		\$413	\$0	\$206	\$0	\$206	\$0	\$413	\$0	\$413	\$0	\$0
General		\$122	\$0	\$139	\$0	\$146	\$0	\$156	\$0	\$122	\$0	\$0
Facilities/Infrastructure		\$0	\$122	\$0	\$139	\$0	\$156	\$0	\$170	\$0	\$122	\$122
Sub-Total		\$635	\$2,387	\$346	\$489	\$1,310	\$608	\$689	\$2,438	\$635	\$472	\$472
Total:		\$1,795	\$11,636	\$1,607	\$2,364	\$2,373	\$3,248	\$1,877	\$12,182	\$1,821	\$2,101	\$2,101

FIGURE - 19
300

General Project Information:

File Name: CoalPerf031601

Project Name: **Sample Project**

Location: **USA**

Operator: **To Be Determined**

Operator's Fees & Services:

Operator Fee	\$0
Legal Services	\$139,805
Construction Services	\$146,709
Testing Services	<u>\$41,424</u>
Total Fees & Services	\$327,939

Travel: \$86,300

Misc. Employee Expenses \$286,422

FIGURE. 20

↑
310

File Name: CoalPerf031601
Project Name: Sample Project

Location: USA

Operator: To Be Determined

Sample Project

Consumables:

Lubricating Oils		\$379,977
Hydraulic Oil.		
Solvents/Boiler Wash.		
Cleaning Materials.		
Welding Supplies		
Nuts/Bolts/Small Mechanical Parts:		
Fuses/Light Bulb/small Elect. Parts:		
Fittings/Small I&E Parts:		
Gas & Oil.		
Total Oils and Lubricants		\$379,977

Chemicals:

Boiler Water:	62.27%	\$285,603
Cooling Water:	36.38%	\$166,889
Demin. Regen.	1.35%	\$6,194
Fuel Oil.		
Sanitary		
NOx		
Aqueous Ammonia:		
Total Chemicals.		\$458,686

Gases:

Nitrogen:	\$0
Hydrogen:	\$0
Oxygen/Acetylene	\$0
NOx, CO, SO2, O2 Span Gas	\$0
Total Gases:	\$0

Office Supplies & Services:

Postage, Overnight Mail, etc:	\$17,104
Freight:	\$0
Telephone	\$41,038
Utilities	\$9,263
Dues, Subscriptions	\$70,914
Advertising	\$0
Camera/ Film/Photo Supplies:	\$0
Copier/Paper/Service:	\$0
Office Supplies:	\$40,194
General Supplies	\$0
Audio Visual Equipment:	\$0
Portable Radios/Service:	\$0
Drinking Water:	\$0
Safety Supplies:	\$0
Safety/Environmental Insp:	\$0
Instrument Service/Repair:	\$0
Vehicles/Service/Fuel:	\$165,284
Insurance Autos/Trucks	\$0
Lift Trucks/Service:	\$0
Small Tools:	\$0
Software for Computers:	\$271
Computer Hardware:	\$0
Building Maintenance:	\$4,594
Janitorial Supplies:	\$0
Misc. Expenses:	\$13,310
Uniforms:	\$0
Total Supplies and Services	\$361,973

Office Furniture/Rent:

Office Rent:	\$0
Desk/Chairs/etc:	\$0
Lab/Shop/Cntrl. Rm Equip:	\$0
Computer Lease:	\$0
Total Office Furniture	\$0

FIGURE - 21

Direct Mat'l

↑
320

File Name: CoalPerf031601
Project Name: Sample Project

Location: USA

Operator: To Be Determined

Rentals/Lease:

Tools:	
Equipment:	\$15,304
Office:	\$261,694
Office Equipment	\$57,431
Railcar:	\$1,066,871
Lease Auto/Tucks	\$17,253
Total Rentals:	\$1,418,553

Planned Spare Parts:

Boiler:	\$1,731,661
Turbine:	\$766,330
APC Equipment:	\$149,151
Feedwater System:	\$62,661
BOP:	\$176,591
Total Spare Parts:	\$2,886,394

FIGURE - 22

↑
340

File Name: CoalPst031801
Project Name: Sample Project

Location: USA

Operator: To Be Determined

Proximate Analysis:

FC	33.71%
VM	30.44%
S	0.65%
M	29.55%
A	5.45%
Total	100.00%
HHV (Btu/lb)	8,500

Information used in conjunction with the coal classification figure:

BTU	8504.88
DRY	33.70%

Project Coal Classification:

Coal Type:	3
(Calculated)	Sub-
	Bituminous
Hardgrove Grind Index:	OK

Ash Mineral Analysis:

Silica - SiO2	31.00
Alumina - Al2O3	14.00
Taraxia - TiO2	1.10
Ferrous Oxide - Fe2O3	6.50
Lime - CaO	24.90
Magnesia - MgO	6.00
Potassium Oxide - K2O	0.25
Sodium Oxide - Na2O	1.30
Sulfur Trioxide - SO3	12.20
Phosphorus Pentoxide - P2O5	0.70
Undetermined	2.35
Total	100.00

Ash Fusion Temperatures (Deg. F)
Initial Deformation-Reducing (Input Data) 2188
Initial Deformation-Oxidizing (Input Data) 2239

PASR Formula Relationships:

BASE/ACID RATIO: (A range of 4-7 coals and results in low ash-fusibility temps)	0.7641
IRON/CALCIUM RATIO: (3-0.3 indicative , lowers the fusibility temp. of the ash.)	0.28
IRON/CLONITE RATIO: (Bt. type ash is	0.21
SILICA/ALUMINA RATIO: (above 2.8 & b	2.21

FIGURE - 23

[illegible]Molecular Weight of Fuel: 0

Natural Gas Heating Value Conversion Analysis:

17-Mar-01

Notes:
(1) Source Mark's standard Handbook for Mechanical Engineers
Ninth Edition Page 4-29

FIGURE 24

103740" 6366660

Moltsulfur Weights		
S	1	32.064
O	2	31.888
		64.083
		50.05%

SO₂ Offset Cost Assumption \$150.00 \$/Ton

Southern Fuels

@ 1.2 lbs
SO₂/million BTU^a

Mines	Average BTU/lb Content	Average Percent Sulfur (S %)	Average Ash Content (%)	In Compliance (Y/N) *	S % allowed for Compliance	lbs SO ₂ /MM BTU	SO ₂ Reduction Efficiency	lbs SO ₂ /MM BTU	Required Offsets Tons SO ₂ /Ton Coal Fired	Cost of Offsets \$/Ton of Coal Fired
Bailey	12,950	2.44%	7.50%	N	0.776%	3.3	10.00%	2.97	0.038462	\$5.789
Colonial	12,800	0.93%	8.89%	N	0.769%	1.45	0.00%	1.45	0.018560	\$2.784
Whitetail	12,800	1.80%	8.25%	N	0.769%	2.5	0.00%	2.50	0.032000	\$4.800
Juliana	12,900	1.28%	9.75%	N	0.775%	2	0.00%	2.00	0.025800	\$3.870
Sawmill	12,900	1.28%	9.75%	N	0.775%	2	0.00%	2.00	0.025800	\$3.870
Sentral	12,900	1.28%	9.75%	N	0.775%	2	0.00%	2.00	0.025800	\$3.870
Whitacre	12,900	0.93%	9.25%	N	0.769%	1.45	0.00%	1.45	0.018560	\$2.784

8,900 0.92% 6.50% N 0.511% 2.17 0.00% 2.17 0.018445 \$2.787

41807.04

Provided Information		Project Info. Check	
Unit 1 Unit 2 Unit 3	HHV	Tons Fired	SO ₂ (tons)
	8,551	756,000	11,500
	8,551	756,000	13,510
Unit 1 Unit 2	HHV	Tons Fired	SO ₂ (tons)
	8,551	2,264,000	37,230
	8,551	2,272,000	38,859
Project Info. Check		Tons Fired	SO ₂ (tons)
		2,338,000	13,510
		4,510,000	25,010

Calculated Information:		Sub- Bituminous		SO ₂ (1.2#/MMBtu)		tons of	
Project	HHV	% S	MMBtu	Sulfur (tons)	#SO ₂ /MMBtu	Allowable Tons	Offsets Required
Unit 1	8,500	0.85%	27,489,039	13,745	2.00	16,493	10,958
Unit 2	8,500	0.85%	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!
Unit 3	8,500	0.85%	#NUM!	#NUM!	#NUM!	#NUM!	#NUM!

FIGURE 25

O & M Labor, Purchased Power And Fuel Calculations

GENERAL PROJECT INFORMATION:

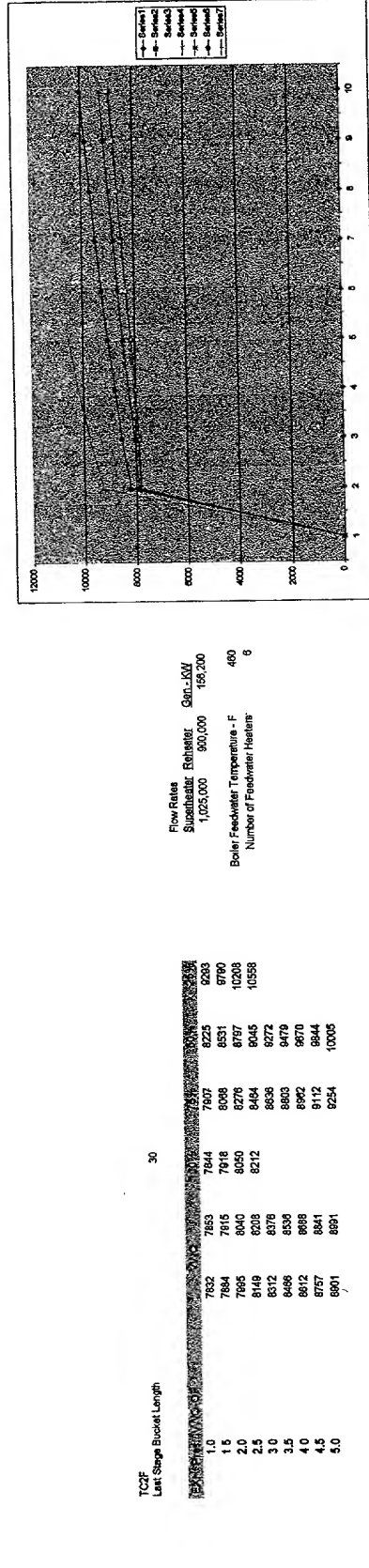
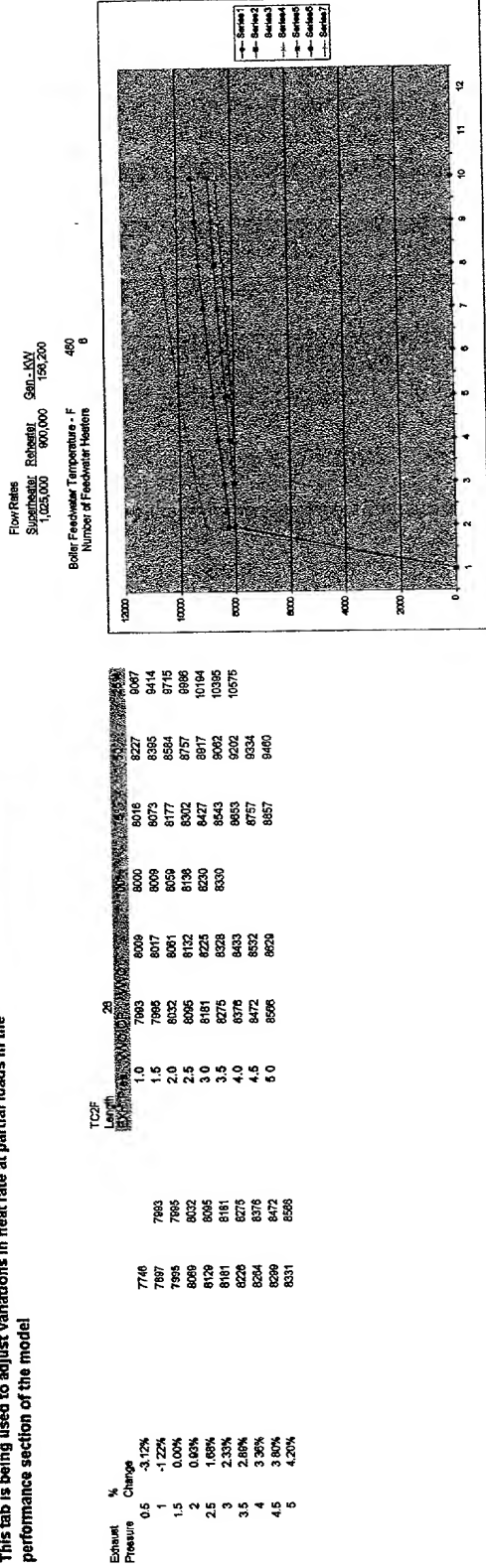
File Name: C:\pwr\031601
 Project Name: Sample Project
 Location: USA
 Operation: To Be Determined
 Annual Inflation Rate (to present day): 4.0%
 Base Date: 22-Aug-83
 Escalation Date: 1-1-87
 Part Year Esc Factor: 1.00

BASE INDEX

Being Updated	Zin Code to be Used to Identify Location	MODEL	PROJECT	PROJECT ADJUSTMENT	PROJECT ADJUSTMENT
			0	ADJ(VOL)	
	COMPOST ADJUSTMENT		897	147	147 44%
	MATERIAL		987	154	156 03%
	LABOR				

FIGURE 28

This tab is being used to adjust variations in heat rate at partial loads in the performance section of the model



Heat Rates	0.2%	0.25%	0.3%	0.35%	0.4%	0.45%	0.5%	0.55%	0.6%	0.65%	0.7%	0.75%	0.8%	0.85%	0.9%	0.95%	1.0%	1.05%	1.1%	1.15%	1.2%
Test Heat Rates	13,463	12,476	11,527	10,571	9,615	8,659	7,703	6,747	5,791	4,835	3,879	2,923	1,967	1,011	55	0	0	0	0	0	0
calc. uncorrected	9,742	9,773	9,805	9,836	9,867	9,898	9,929	9,960	9,991	10,022	10,053	10,084	10,115	10,146	10,177	10,208	10,239	10,270	10,301	10,332	10,363
Steam correction factor	1.342	1.277	1.208	1.138	1.068	0.998	0.928	0.858	0.788	0.718	0.648	0.578	0.508	0.438	0.368	0.298	0.228	0.158	0.088	0.018	0
1,120,239	1,118,048	1,115,857	1,113,666	1,111,475	1,109,284	1,107,093	1,104,902	1,102,711	1,100,520	1,098,329	1,096,138	1,093,947	1,091,756	1,089,565	1,087,374	1,085,183	1,082,992	1,080,801	1,078,610	1,076,419	1,074,228
200 MW Tandem Compound	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650	9,650
300 MW Tandem Compound	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113	10,113
400 MW Tandem Compound	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215	10,215
600 MW Tandem Compound	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564	8,564

66366360

0.0817521
0.0044444
1.17

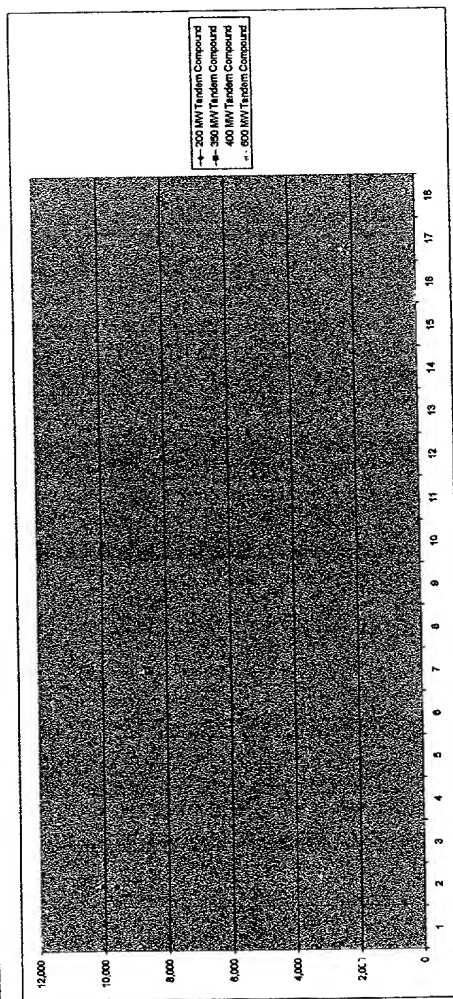
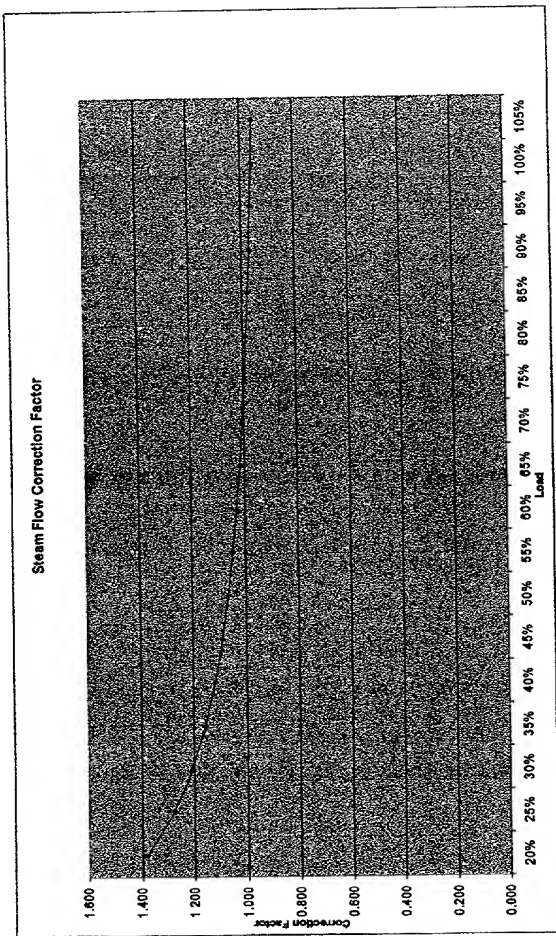


FIGURE - 29

CoalPerf031601

File Name: CoalPerf031601
Project Name: Sample Project

Location: USA

Operator: To Be Determined

FIGURE-30

IE Dispatch Information: For Reference Only																					
Average Annual Capacity: 373																					
Capacity Factor	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
Calculated Capacity Factor	83.70%	85.00%	71.30%	69.60%	67.50%	68.10%	67.10%	68.00%	67.90%	67.90%	68.20%	68.00%	67.00%	67.00%	69.60%	67.00%	68.80%	67.20%	67.30%	67.40%	
Availability	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	90.00%	
Average Load	93.00%	94.44%	79.22%	77.33%	75.00%	75.87%	74.59%	75.86%	75.44%	75.33%	75.78%	75.44%	74.44%	75.11%	74.00%	74.58%	74.00%	74.87%	74.78%	74.89%	
Hours in Year	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	8,760	
Hours Dispatched	7,864	7,864	7,906	7,864	7,864	7,864	7,906	7,864	7,864	7,864	7,906	7,864	7,864	7,864	7,906	7,864	7,864	7,864	7,864	7,864	
Annual Output	2,731,405	2,773,629	2,333,127	2,271,278	2,202,745	2,222,328	2,195,692	2,219,083	2,215,900	2,212,536	2,231,687	2,215,800	2,188,430	2,206,010	2,179,331	2,189,688	2,173,376	2,192,568	2,202,237	2,199,493	
Calculated Annual Output	2,327,160	2,317,600	2,184,503	2,164,503	2,154,503	2,164,503	2,154,503	2,164,503	2,154,503	2,164,503	2,174,503	2,164,503	2,154,503	2,164,503	2,174,503	2,164,503	2,154,503	2,164,503	2,174,503	2,164,503	

Major Outages		1												1												1																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
		Hours Available for Dispatched												Hours Available for Dispatched												Hours Available for Dispatched																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
January	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744	744

Figure - 3.1

Unit 1 Gross Capacity: 373

Unit 1 Dispatch Information:	January-01	February-01	March-01	April-01	May-01	June-01	July-01	August-01	September-01	October-01	November-01	December-01	2001
Percentage of Hours Dispatched	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
Average Hours Dispatched	744	744	744	744	744	744	744	744	744	744	744	744	744
Fuel Fired	193.88	193.88	193.88	193.88	193.88	193.88	193.88	193.88	193.88	193.88	193.88	193.88	193.88
Total Ash (100% up) - tons	145,718	145,718	145,718	145,718	145,718	145,718	145,718	145,718	145,718	145,718	145,718	145,718	145,718
Total Limestone (100% up) - tons	2,090	2,090	2,090	2,090	2,090	2,090	2,090	2,090	2,090	2,090	2,090	2,090	2,090
Total Flyash/Limestone Load - tons	3,282	3,282	3,282	3,282	3,282	3,282	3,282	3,282	3,282	3,282	3,282	3,282	3,282
Heat Rate Information:													
Gross Generation	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026
Unit Gross Heat Rate - BTU/KWh	9428	9428	9428	9428	9428	9428	9428	9428	9428	9428	9428	9428	9428
Plant Net Heat Rate - BTU/KWh	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860
Net Generation	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860
Plant Net Heat Rate - BTU/KWh	9977	9977	9977	9977	9977	9977	9977	9977	9977	9977	9977	9977	9977
Unit 1 Dispatch Information:	January-03	February-03	March-03	April-03	May-03	June-03	July-03	August-03	September-03	October-03	November-03	December-03	2003
Percentage of Hours Dispatched	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%	93.00%
Average Hours Dispatched	202.48	202.48	202.48	202.48	202.48	202.48	202.48	202.48	202.48	202.48	202.48	202.48	202.48
Fuel Fired	140,097	140,097	140,097	140,097	140,097	140,097	140,097	140,097	140,097	140,097	140,097	140,097	140,097
Total Ash (100% up) - tons	7,705	7,705	7,705	7,705	7,705	7,705	7,705	7,705	7,705	7,705	7,705	7,705	7,705
Total Limestone (100% up) - tons	2,232	2,232	2,232	2,232	2,232	2,232	2,232	2,232	2,232	2,232	2,232	2,232	2,232
Total Flyash/Limestone Load - tons	9,938	9,938	9,938	9,938	9,938	9,938	9,938	9,938	9,938	9,938	9,938	9,938	9,938
Heat Rate Information:													
Gross Generation	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026	252,603,026
Unit Gross Heat Rate - BTU/KWh	9428	9428	9428	9428	9428	9428	9428	9428	9428	9428	9428	9428	9428
Plant Net Heat Rate - BTU/KWh	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860
Net Generation	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860	238,709,860
Plant Net Heat Rate - BTU/KWh	9977	9977	9977	9977	9977	9977	9977	9977	9977	9977	9977	9977	9977

Assumed Tax (per ton of Carbon):	\$40
-----------------------------------	------

Sub-
Bituminous

Facility Net Heat Rate (HHV):	BTU/KWH	9,956
HHV of Coal:	BTU/#	8,500
Percent Carbon in Coal (WT)		48.30%
Unit Capacity:	MW	373
Carbon Loss:		0.25%
Molecular Weight of Carbon		12.01
Molecular Weight of O2		32.00
Price per MMBtu from Coal		1.11
Price per Ton of Coal (delivered)	per Ton	\$30.00
Net KWH Produced:		2,761,097,147
Coal Fired	Tons	1,617,002
Carbon in Flue Gas	Tons	781,012
CO2	Tons	2,861,804
Fuel Cost:	Total	\$48,631,344
	\$/kwh	\$0.0176
Carbon Tax:		\$31,240,484
	per KWH	\$0.0113
	per MMBtu	\$1.14

Tons CO2/kWh

0.001036473

FIGURE-32

FIGURE 33

500

